AMENDMENTS TO THE CLAIMS

The following is a complete listing of the claims submitted in this application, including the present status thereof and including any amendments made by this paper. Any claims canceled or withdrawn from consideration in this application have been canceled or withdrawn without prejudice or disclaimer of any subject matter therein, applicants specifically reserving the right to pursue any and all claims in continuing or divisional applications. By this paper, claims 64-66, 68-70, 117, 122 and 123 (9 claims) have been canceled. Claims 59, 62-63, 67, 71-78, 84-93, 115-116 and 120-121 have been amended and new claims 126-130 (5 claims) have been added.

Listing of claims:

1-55(canceled).

56(previously presented). A method of treatment of a chronic inflammatory disease in a patient, the method comprising the administration to the patient of a compound that selectively inhibits T_{ck} cells.

57(previously presented). A method according to claim 56 wherein said compound is a nucleic acid molecule encoding a polypeptide which selectively inhibits T_{ck} cells.

58(previously presented). A method according to claim 56 wherein said compound selectively inhibits T_{ck} cell-induced release of one or more pro-inflammatory cytokines from monocytes.

59(currently amended). A method according to claim 58 wherein the cytokine is tumour necrosis ~~factor-∀~~ factor-α.

60(currently amended). A method according to any one of claims 56-59 wherein said compound selectively inhibits ~~NF-6B~~ NF-κB.

61(previously presented). A method according to any one of claim 56-59 wherein said compound selectively activates PI3 kinase.

62(currently amended). A method according to claim 60 wherein the nucleic acid molecule encodes an NF-kB inhibitor, preferably I~~6B∀~~ IκBα.

63(currently amended). A method according to claim 61 wherein the nucleic acid molecule encodes an NF-kB inhibitor, preferably ~~I6B∀~~ IκBα.

64-66(canceled).

67(currently amended). A method according to claim 66 wherein said method comprises the following steps:

(i) pre-incubating monocytes with a compound to be tested;

(ii) resuspending said pre-incubated monocytes in the absence of the test compound;

(iii) stimulating said resuspended monocytes by co-culturing with either T_{ck} cells or T_{tcr} cells; and

(iv) assaying for ~~TNFV~~ TNFα production by said stimulated monocytes.

68-70(canceled).

71(currently amended). A method according to claim 64 wherein testing the compound for an ability to selectively inhibit T_{ck} cells or selectively inhibit T_{ck} cell-induced release of one or more pro-inflammatory cytokines from monocytes comprises determining whether the compound exhibits ~~NF-6B~~ NF-κB inhibition.

72(currently amended). A method according to claim 71 wherein ~~NF-6B~~ NF-κB inhibition is constituted by a reduction in the binding of nuclear extracts, derived from monocytes exposed to the compound, to an ~~NF-6B~~ NF-κB promoter DNA oligonucleotide.

73(currently amended). A method according to claim 72 wherein a reduction in the binding of nuclear extracts, derived from monocytes exposed to the compound, to an ~~NF-6B~~ NF-κB promoter DNA oligonucleotide is determined by an electrophoretic mobility shift assay (EMSA).

74(currently amended). A method according to any one of claims 71-73 wherein ~~NF-6B~~ NF-κB inhibition is deemed to exist if the binding of ~~NF-6B~~ NF-κB to an ~~NF-6B~~ NF-κB promoter DNA oligonucleotide is reduced to no more than 50%, a presumption being strengthened as that percentage approaches zero.

75(currently amended). A method according to claim 71 wherein ~~NF-6B~~ NF-κB inhibition is constituted by a reduction in expression of the ~~NF-6B~~ NF-κB gene.

76(currently amended). A method according to claim 75 wherein a reduction in the expression of the ~~NF-6B~~ NF-κB gene is determined by a reporter gene assay.

77(currently amended). A method according to claim 76 wherein the reporter gene assay comprises coupling a ~~∃~~β-galactosidase gene to the ~~NF-6B~~ NF-κB gene and determining a reduction in ~~∃-galactosidase~~ β-galactosidase activity.

78(currently amended). A method according to claim 77 wherein ~~∃-galactosidase~~ β-galactosidase activity is reduced to no more that 50%.

79(previously presented). A method according to claim 64 wherein testing the compound for an ability to selectively target T_{ck} cells or selectively inhibit T_{ck} cell-induced release of one or more pro-inflammatory cytokines from monocytes comprises determining whether the compound exhibits PI3 kinase activation.

80(previously presented). A method according to claim 79 wherein PI3 kinase activation is constituted by an increase in PI3 kinase activity in monocytes exposed by the compound.

81(previously presented). A method according to claim 80 wherein PI3 kinase activation is deemed to exist if there is an increase in PI3 kinase activity equivalent to a range from at least 50% of the increase induced by IL-10 stimulation (100 ng/ml for 2 minutes), to an amount greater than the increase induced by IL-10 stimulation.

82(previously presented). A compound identified as having efficacy in the treatment of a chronic inflammatory disease by testing the compound for an ability to selectively inhibit T_{ck} cells or selectively inhibit T_{ck} cell-induced release of one or more pro-inflammatory cytokines from monocytes.

83(previously presented). An antibody-like molecule having specificity for T_{ck} cells.

84(currently amended). An antibody-like molecule according to claim 83 selected from the group of molecules consisting of Fab molecules, ~~F(ab')$_2$~~ $\underline{F(ab')_2}$ molecules, Fv molecules, disulphide-linked Fv molecules, single chain Fv (scFv) molecules and single domain antibodies (dAbs).

85(previously presented). An antibody-like molecule according to claim 83 wherein said antibody-like molecule is humanized.

86(previously presented). An antibody-like molecule according to claim 84 wherein said antibody-like molecule is humanized.

87(previously presented). A method of making an antibody-like molecule having specificity for T_{ck} cells.

88(previously presented). An isolated cell that expresses an antibody-like molecule having a specificity for T_{ck} cells.

89(previously presented). An isolated cell according to claim 88 wherein the cell is a hybridoma cell.

90(previously presented). A method for identifying an antibody-like molecule having specificity for T_{ck} cells comprising the following steps:

(i) providing a population of T_{ck} cells; and

(ii) using said T_{ck} cells to screen a library of antibody-like molecules.

91(previously presented). A method according to claim 90 wherein the antibody-like molecule library is a phage display library.

92(previously presented). A compound comprising a target cell specific portion and a directly or indirectly cytotoxic portion, wherein the target cell specific portion comprises an antibody-like molecule having a specificity for T_{ck} cells.

93(currently amended). A compound according to claim 92 wherein the antibody-like molecule is selected from the group of molecules consisting of Fab molecules, ~~$F(ab')_2$~~ $\underline{F(ab')_2}$ molecules, Fv molecules, disulphide-linked Fv molecules, single chain Fv (scFv) molecules and single domain antibodies (dAbs).

94(previously presented). A compound according to claim 93 wherein said antibody-like molecule is humanized.

95(previously presented). A compound according to any one of claims 92-94 wherein the cytotoxic portion is a directly cytotoxic portion selected from the group consisting of radionuclides, ricin, ribonuclease, deoxyribonuclease, and *Pseudomonas* exotoxin A.

96(previously presented). A compound according to any one of claims 92-94 wherein the cytotoxic portion is indirectly cytotoxic.

97(previously presented). A compound according to any one of claims 92-94 wherein the cytotoxic portion is capable of inducing apoptosis of the target cells.

98(previously presented). A compound according to any one of claims 92-94 wherein the cytotoxic portion is an enzyme.

99(previously presented). A compound according to claim 97 wherein the cytotoxic portion is an enzyme.

100(previously presented). A compound according to any one of claims 92-94 wherein the target cell specific portion and the cytotoxic portion are fused.

101(previously presented). A compound according to claim 100 wherein the target cell specific portion and the cytotoxic portion are separated by a linker sequence.

102(previously presented). A compound according to any one of claims 92-94 having a nucleic acid molecule encoding.

103(previously presented). A compound according claim 101 having a nucleic acid molecule encoding.

104(previously presented). A compound according to any one of claims 92-94 wherein said nucleic acid molecule is included in a vector.

105(previously presented). A compound according to claim 103 wherein said nucleic acid molecule is included in a vector.

106(previously presented). A compound according to claim 104 wherein said vector is included in a host cell line.

107(previously presented). A compound according to claim 105 wherein said vector is included in a host cell line.

108(previously presented). A compound according to claim 82 for use in the treatment of a chronic inflammatory disease.

109(previously presented n). A preparation of T-cell enriched cells wherein the cells are from tissue from a site

of inflammation in a patient suffering from a chronic inflammatory disease.

110(previously presented). A preparation of cells according to claim 109 wherein the chronic inflammatory disease is rheumatoid arthritis.

111(previously presented). A preparation of cells according to claim 109 wherein the tissue is from the synovium.

112(previously presented). A preparation of cells according to claim 110 wherein the tissue is from the synovium.

113(previously presented). A preparation of cells according to any one of claims 109-112 wherein the T-cell enriched cells are CD3+-enriched cells.

114(previously presented). A preparation of cells according to any one of claims 109-112 wherein the T-cell enriched cells are non-adherent cells.

115(currently amended). A method of identifying a compound with efficacy in the treatment of chronic inflammatory disease ~~comprising the step of~~ by testing the compound for an ability to selectively inhibit the ability of ~~Tek~~ T_{ck} cells to induce pro-inflammatory cytokine release from a monocyte;

wherein said method comprises the following steps:

(i) pre-incubating T_{ck} cells with a compound to be tested;

(ii) optionally resuspending the T_{ck} cells in the absence of the test compound;

(iii) co-culturing the T_{ck} cells with monocytes; and

(iv) assaying for the production of pro-inflammatory cytokines by the monocytes;

wherein said T_{ck} cells are produced by incubating a population of T cells with one or more cytokines or are isolated from synovial tissue;

wherein said T_{ck} cells have not been contacted with an anti-CD3 antibody; and

wherein an ability to selectively inhibit said cytokine release indicates that the compound has efficacy in the treatment of chronic inflammatory disease.

116(currently amended). A method according to claim 115 wherein said compound is an antibody ~~or an antibody-like molecule~~ having specificity for ~~Tck~~ T_{ck} cells.

117(canceled).

118(previously presented). A method according to claim 115 wherein said pro-inflammatory cytokine is TNFα.

119(currently amended). A method according to claim 90 further comprising the steps of:

(iii) selecting one or more antibody-like molecule(s) from said library which selectively bind said ~~Tek~~ T_{ck} cells;

(iv) pre-incubating a population of Tck cells with said antibody-like molecule(s);

(v) co-culturing said population of Tck cells with monocytes; and

(vi) assaying for TNFα produced by said monocytes.

120(currently amended). A method according to claim 115 wherein said ~~Tek~~ $\underline{T_{ck}}$ cells are produced by incubating a population of T cells with one or more cytokines.

121(currently amended). A method according to claim 115 wherein said ~~Tek~~ $\underline{T_{ck}}$ cells are isolated from synovial tissue.

122-123(canceled).

124(previously presented). A method according to claim 115 comprising determining whether the compound exhibits NF-κB activation.

125(previously presented). A method according to claim 115 comprising determining whether the compound exhibits PI3 kinase activation.

126(new). A method according to claim 115 wherein said chronic inflammatory disease is rheumatoid arthritis.

127(new). A method according to claim 115 wherein said method comprises the following steps:

(i) incubating separate cultures of T_{ck} cells and T_{tcr} cells with a compound to be tested either during or after the activation of said T cells;

(ii) resuspending each of said T_{ck} and T_{tcr} cell cultures in the absence of the test compound;

(iii) coculturing each of said resuspended cultures with monocytes to allow stimulation of the monocytes; and

(iv) assaying for TNFα production by said monocytes;

wherein said T_{tcr} cells that have been activated by triggering of the T cell receptor for antigen; and

wherein the ability of a compound to inhibit T_{ck} cell-induced production of TNFα by monocytes to a greater extent than T_{tcr} cell-induced production of TNFα by monocytes indicates that the compound has efficacy in the treatment of chronic inflammatory disease.

128(new). A method according to claim 127 wherein said T_{tcr} cells have been activated by contacting them with anti-CD3 antibodies.

129(new). A method according to claim 115 wherein said T_{ck} cells are produced by incubating a population of T cells with IL-15.

130(new). A method according to claim 115 wherein said T_{ck} Cells are produced by incubating a population of T cells with IL-6, TNF and either IL-2 or IL-15.